

## Attachment C

**John Garrett Williams**  
875 Linden Lane, Davis, CA 95616  
530-753-7081  
[jgwill@dcn.davis.ca.us](mailto:jgwill@dcn.davis.ca.us)

### Curriculum vitae

#### EDUCATION

- 1978-1979: Postdoctoral Scholar with Dr. Park Nobel, Environmental Biology Section, Laboratory of Nuclear Medicine and Radiation Biology, University of California, Los Angeles.
- 1978: Ph.D., Geography, University of California, Los Angeles, with emphasis on climatology, soils, and agricultural geography; thesis title: A method for obtaining more climatological information from short observational records.
- 1966: B.A., History, University of California, Berkeley.

#### PROFESSIONAL EXPERIENCE

- 1990-present: Independent consultant
- 1997-2003 Executive Director, Bay-Delta Modeling Forum (part time).
- 1990-1996 Special Master, *Environmental Defense Fund v. East Bay Municipal Utility District*.
- 1985-1990: Senior Associate, Philip Williams & Associates, Ltd., San Francisco.
- 1984-1985: Principal, Williams, Kondolf and Swanson, Carmel, California.
- 1982-1983: Environmental Analyst, Monterey Peninsula Water Management District.
- 1982: Visiting Professor, Department of Geography, Kent State University, Kent, Ohio.

#### VOLUNTEER TEACHING

- 1997: Co-taught graduate seminar on instream flow issues with Dr. Peter Moyle, Department of Wildlife, Fish and Conservation Biology, University of California, Davis (WFC 291).

#### PUBLIC SERVICE

- 1978-1981 and 1983-1987 Director, Monterey Peninsula Water Management District (elected).
- 1976-1978: Member, Zone 11 Advisory Committee to the Monterey County Flood Control and Water Conservation District (appointed).

#### OTHER EXPERIENCE

- 2005-06 Member, CALFED Technical Review Panel for the NMFS Biological Opinion on the Long-Term Central Valley Project and State Water Project Operations Criteria and Plan.
- 2003-06 Member, NOAA Fisheries Technical Recovery Team for Central Valley salmonids.
- 2000-02 Member, advisory panel, NSF incubation grant: linking large-scale hydrological and biological processes in restoring riparian forest ecosystems.

2000-01 Member, peer review panel for EPA Region 10, regarding development of temperature criteria guidance for Clean Water Act implementation in the Pacific Northwest.  
2000 Member, CALFED scientific and geographic review panels for Ecosystem Restoration Program grant proposals.  
2000 Staff, expert review of instream flow issues in coastal watersheds for the (California) State Water Resources Control Board.  
1999-2000: Member, core team for white paper on Sacramento River restoration flows.  
1998: Chair, geomorphology and riparian issues work team, Comprehensive Assessment and Monitoring Program (CMARP) of the CALFED Bay-Delta Program.  
1988-Present: Representative, Ventana Chapter of the Sierra Club, in State Water Resources Control Board hearings regarding the Carmel River and other water rights proceedings.

#### OTHER WORK EXPERIENCE

1980-1981: Owner/Manager, Pacific Mushroom Company, San Francisco.  
1963-1971: Commercial fisherman, Alaska and California (occasional).

#### AWARDS

Ventana Chapter of the Sierra Club, 1999 Outstanding Service Award.

#### PROFESSIONAL ORGANIZATIONS

American Fisheries Society  
American Association for the Advancement of Science  
California Water and Environmental Modeling Forum

#### PROFESSIONAL SERVICE

Reviewer for Fisheries, the Canadian Journal of Fisheries and Aquatic Sciences, San Francisco Estuary and Watershed Science, and California Fish and Game.

#### PUBLICATIONS

*Papers published in refereed journals:*

Adams, P.B., L. Botsford, K. Gobalet, R. A. Leidy, D. McEwan, P. Moyle, J. Smith, J. Williams, R. Yoshiyama. 2007. Coho salmon (*Oncorhynchus kisutch*) are native south of San Francisco Bay. *Fisheries* 32(9):441-451.

Lindley, S.T., R.S. Schick, E. Mora, B.P. Adams, J.J. Anderson, S. Greene, C. Hanson, B. May, D. McEwan, B. McFarlane, C. Swanson, and J.G. Williams. 2007. Framework for assessing viability of threatened and endangered Chinook salmon and steelhead in the Sacramento-San Joaquin basin. *San Francisco Estuary and Watershed Science*. Vol. 5, Issue 1, Article 4.  
<http://repositories.cdlib.org/jmie/sfew/vol5/iss1/art4>

Williams, J.G. 2006. Central Valley Salmon: a perspective on Chinook and steelhead in the Central Valley of California. *San Francisco Estuary and Watershed Science*, Volume 4, Issue 3, Article 2.

Lindley, S.T., R.S. Schick, A. Agawal, M. Goslin, T.E. Pearson, E. Mora, J.J. Anderson, B. May, S. Greene, C. Hanson, A. Low, D. McEwan, B. McFarlane, C. Swanson, and J.G.

Williams. 2006. Historical population structure of Central Valley steelhead and its alteration by dams. *San Francisco Estuary and Watershed Science* 4(1) article 3.

Williams, J.G. 2001. Chinook salmon in the lower American River, California's largest urban stream. Pages 1-37 in R. Brown, editor, *Contributions to the biology of anadromous salmonids of the Central Valley, California*. Fish Bulletin 179, Volume 2. California Department of Fish and Game, Sacramento.

Williams, J.G. 2001. Testing models used for instream flow assessment. *Fisheries* 26(12):19-20.

Williams, J.G. 2001 Tripping over spatial scales, a comment on Guay et al. (2000) Development and validation of numerical habitat models for juveniles of Atlantic salmon (*Salmo salar*). *Canadian Journal of Fisheries and Aquatic Sciences* 58:2105-2107.

Kondolf, G.M., E.W. Larsen, and J.G. Williams. 2000. Measuring and modeling the hydraulic environment for assessing instream flows. *North American Journal of Fisheries Management* 20:1016-1028.

Williams, J.G. 1999. Stock dynamics and adaptive management of habitat: an evaluation based on simulations. *North American Journal of Fisheries Management* 19:329-341.

Williams, J.G., T.P. Speed, and W.F. Forrest. 1999. Transferability of habitat suitability criteria. Comment. *North American Journal of Fisheries Management* 19:623-625.

Williams, J.G. 1997. Testing the independence of microhabitat preferences and flow. Comment. *Transactions of the American Fisheries Society* 126:536-537.

Castleberry, D.T., J.J. Cech Jr., D.C. Erman, D. Hankin, M. Healey, G.M. Kondolf, M. Mangel, M. Mohr, P.B. Moyle, J. Nielsen, T.P. Speed, and J.G. Williams. 1996. Uncertainty and instream flow standards. *Essay, Fisheries*:21(8):20-21.

Williams, J.G. 1996. Lost in space: minimum confidence intervals for idealized PHABSIM studies. *Transactions of the American Fisheries Society* 125:458-465.

Kondolf, G.M., L.M. Maloney, and J.G. Williams. 1987. Effects of bank storage and well pumping on base flow, Carmel River, Monterey County, California. *Journal of Hydrology* 91:351-369.

Woodhouse, R.M., P.S. Nobel, and J.G. Williams. 1983. Simulation of plant temperature and water loss by the desert succulent *Agave deserti*. *Oecologia (Berlin)* 57:291-297.

Williams, J.G. 1981. Eigenvector filtering of three-dimensional pressure field data. *Journal of Applied Meteorology* 20:59-65.

Woodhouse, R.M., P.S. Nobel, and J.G. Williams. 1980. Leaf Orientation, radiation interception, and nocturnal acidity increase in the CAM plant, *Agave deserti*. *American Journal of Botany* 63:1179-1185.

Williams, J.G. 1976. Small variation in the photosynthetically active fraction of solar radiation. *Arch. Met. Geoph. Biokl., Ser. B* 24:209-21.

Williams, J.G. 1976. Change in the transmissivity parameter with atmospheric path length. *Journal of Applied Meteorology* 15:1321-1223.

*Chapters in books:*

Kondolf, G.M., J.G. Williams, T. Horner, and D. Milan. Assessing physical quality of spawning habitat. In D. Sear, P. DeVries, and S. Greig (eds.) *Salmon spawning habitat in rivers: Physical controls, biological responses, and approaches to remediation*. American Fisheries Society, Bethesda, MD. (in press)

*Papers submitted:*

Williams, J. G. Lost in space, the sequel: spatial sampling issues with 1-D PHABSIM. Submitted to *River Research and Application*.

Williams, J.G. Statistical problems with tests of PHABSIM. Submitted to *River Research and Management*.

*Papers in preparation:*

Barker, R.J., J.G. Williams, M. Dedual. Statistical considerations in the use of PHABSIM or other numerical habitat models. Intended for *Fisheries*.

*Papers published in symposium proceedings:*

Williams, J.G. and G. M. Matthews. 1990. Willow ecophysiology: implications for riparian restoration. Pages 196-202 in *Environmental Restoration*, J. Berger (ed.) Island Press, Washington, DC.

Kondolf, G.M., P. Vorster, and J.G. Williams. 1990. Hydraulic and channel stability considerations in stream habitat restoration. Pages 214-227 in *Environmental Restoration*, J. Berger, (ed.) Island Press. Washington, DC.

Williams, J.G. 1989. Interpreting physiological data from riparian vegetation: cautions and complications. Pages 381-386 in *Proceedings of the California Riparian Systems Conference: Protection, Management in the 1990's*, Sept. 22-24, 1988, Davis, California. Gen. Tech. Rept. PSW-110, Forest Service, USDA, Berkeley, CA.

Williams, M. and J.G. Williams. 1989. Avifauna and riparian vegetation in Carmel Valley, Monterey County, California. Pages 314-318 in *Proceedings of the California Riparian Systems Conference: Protection, Management in the 1990's*, Sept. 22-24, 1988, Davis, California. Gen. Tech. Rept. PSW-110, Forest Service, USDA, Berkeley, CA.

Williams, J.G. 1983. Habitat change in the Carmel River basin. Pages 5-26 in Channel Stability and Fish Habitat, Carmel River, California. Guidebook to symposium and field conference, June 16-18, Monterey, California.

*Invited book reviews:*

Williams, J.G. 1996. California Water, by A.L. Littleworth and E.L. Garner. Estuaries (Journal of the Estuarine Research Federation) 19:753

*Abstracts:*

Williams, J.G. and G. Matthews. 1987. The 1983 erosion event on Tularcitos Creek, Monterey County, California, and its aftermath. Proceedings of the California Watershed Management Conference, Nov. 18-20, West Sacramento, Calif. University of California Wildlands Resources Center Report No. 11.

McNeish, C., G. Matthews, and J.G. Williams. 1984. Effects of groundwater pumping on water stress in riparian trees in Carmel Valley, California. Agronomy Abstracts.

*Letters in professional journals*

Science 300:2032 2003, regarding sardine fishing in the early 20<sup>th</sup> Century.

Fisheries 20(9):38, 1995, regarding the temperature tolerance of juvenile chinook salmon.

*Edited works:*

Williams, J.G., ed. 1997. Transcript of Workshop on instream flow standards, University of California-Davis, April 7, 1995. Water Resources Center Report No. 89, Centers for Water and Wildlands Resources, University of California, Davis, CA 95616.

Williams, J.G. 1993. Notes and selected abstracts from the workshop on Central Valley chinook salmon, UC Davis, January 4-5.

Williams, J.G., G.M. Kondolf, D. Lindquist, and B. Laclergue. 1989. Politics and practices of restoration. Guidebook for symposium and field tour, Carmel River watershed, October 6-7, sponsored by the Watershed Management Council.

Williams, J.G., and G.M. Matthews. 1983. Channel stability and fish habitat, Carmel River, California. Guidebook for symposium and field tour, June 16-18. Sponsored by the Monterey Peninsula Water Management District and the California Department of Fish and Game.

*Significant works of limited distribution:*

Williams, J.G., J. J. Anderson, S. Greene, C. Hanson, S. T. Lindley, A. Low, B. P. May, D. McEwan Monitoring and research needed to manage the recovery of threatened and endangered Chinook and steelhead in the Sacramento-San Joaquin basin, M. S. Mohr, R. B. MacFarlane and C. Swanson. 2007. NOAA Tech. Memo. NMFS-SWFSC-399.

Anderson, J., M. Deas, A. Georgi, J. Lichatowich, K. Rose, and J. Williams. 2005. Review of the Biological Opinion of the Long-Term Central Valley Project and State Water Project Operations Criteria and Plan. Report to CalFed.

Moyle, Peter, B., G. Mathias Kondolf, and John G. Williams. 2000. Fish bypass flows for coastal watersheds: a review of proposed approaches for the State Water Resources Control Board.

Williams, J.G. 1998. Thoughts on adaptive management. Newsletter, Interagency Ecological Program for the Sacramento-San Joaquin Estuary 11(3):5-11.

Williams, J.G. 1995. Report of the Special Master, Environmental Defense Fund v. East Bay Municipal Utility District, Alameda County (California) Action 425955.

#### MEETINGS AND SYMPOSIA ORGANIZED

Lower American River Science Conference. June 5-6, 2003, California State University Sacramento (as part of a committee).

River Ecosystems: New Directions and Challenges in Setting Instream Flows. August 1997. Symposium at the 1997 National Meeting of the American Fisheries Society, Monterey, California. (with W. Lifton and S. Williamson.)

Workshop on Instream Flow Standards: April 7, 1995. (sponsored by the Centers for Water and Wildlands Resources, University of California, Davis.) Davis, California.

Biology of the Sacramento-San Joaquin river system: life in the new regulatory environment. June 29, 1993. Special session, joint conference of the Western Association of Fish and Wildlife Agencies and Western Division, American Fisheries Society. Sacramento, California.

Workshop on Central Valley chinook salmon: Jan. 4-5, 1993. (sponsored by UC Davis Dept. of Wildlife and Fisheries Biology, organized with Joe Cech, Peter Moyle, Keith Marine, and Dan Castleberry) Davis, California.

Rivers in the city: design and management in the age of public trust. Nov. 2-3, 1990, at UC Berkeley. (sponsored by the UC Berkeley Dept. of Landscape Architecture, organized with G.M. Kondolf) Berkeley, California.

Politics and practices of restoration: symposium and field tour, Carmel River Watershed. Sponsored by the Watershed Management Council. October 6-7, 1989. (organized with G. M. Kondolf, D. Lindquist, and B. Laclergue). Carmel, California.

Channel stability and fish habitat, Carmel River, California. June 16-18, 1983. (sponsored by CDFG, Packard Foundation, and MPWMD, organized with G.M. Kondolf). Monterey, California.

#### INVITED TALKS

Monitoring salmon and their habitat in the Central Valley: evolution or intelligent design? 2005.. Salmonid Monitoring Workshop, Romberg Tiburon Center, Sausalito, CA, August 23-25.

Thoughts on monitoring Central Valley salmon and steelhead. 2004. CALFED Science Conference, October 14-16, Sacramento, California.

Coded-wire tag studies of the Delta Cross-Channel: results and complications. 2003 Environmental Water Account Workshop, July 16 and 17, California State University, Sacramento.

Variation in the life cycles of salmon and steelhead and the Delta's persistent questions. Science Symposium on Environmental and Ecological Effects of Proposed Long-Term Water Project Operations, June 19-20, 2003. California State University, Sacramento.

The Hodge Decision as adaptive management. 14<sup>th</sup> Annual Environmental Law Conference, Exploring the Confluence of Environmental Law and Science. University of California, Davis, March 17, 2000.

Invited participant, Instream Flow Methods Conference, Water Resources Inventory Area 1 (Northwestern Washington State), September 15-17, 1999.

Uncertainty and instream flow assessments: lessons from the American River Experience. Assessment Methods Workshop, Water Use Planning Process. B.C. Hydro. Vancouver, Canada. June 25-26, 1999.

Invited participant, International Workshop on Ecosystem-Based Management in the Coastal Zone, University of British Columbia, Vancouver, Canada. May 26-28, 1999.

Thoughts on adaptive management and its application to Clear Creek, Shasta County, California. American Fisheries Society, California-Nevada Chapter, 1999 annual meeting. March 26, Redding, California.

Future scenarios: water in and from the Carmel River. Salmonid Restoration Federation, 1999 annual meeting, session on Coordinated Basin Management for the Carmel River. February 19, Brookdale, California.

Subsurface flow and percolating groundwater: Carmel River case study. Groundwater Resources Association of California annual meeting, Walnut Creek, California, 23 October 1998.

Setting instream flows in the face of uncertainty: adaptive management, the precautionary principle, and the public trust. California-Nevada Chapter of the American Fisheries Society, 1998 annual meeting, symposium on stream flow conditions below dams: biology and law. April 23, Sacramento, California.

Determining instream flows for large rivers: the American River experience. 1997 National Meeting of the American Fisheries Society, symposium on instream flows. August 27. Monterey, California.

PHABSIM is a broken compass. Northeast Division of the American Fisheries Society, 1997 annual meeting, special session on instream flows. April 28, Framingham, Mass.

Research needed for effective implementation of the Central Valley Project Improvement Act. 1993 Joint conference of the Western Association of Fish and Wildlife Agencies and the Western Division, American Fisheries Society. June 29. Sacramento, California.

#### OTHER AREAS OF EXPERIENCE

Consulting experience with instream flow assessment, stream and wetland restoration, fluvial geomorphology, flood management, water rights, and water supply. Recent consulting projects include several geomorphic assessments of Sacramento River and its tributaries that provide a framework within which to assess proposed restoration projects at specific sites.